1714

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of: THOMAS G. HOUMAN, RICHARD B. STEVENS, THERESA A. FULTS and TIMOTHY G. KENNY

Serial No. 09/716,392

Filed: NOVEMBER 20, 2000

For: ABUSE RESISTANT SKIM COATING COMPOSITION

Examiner: CALLIE E. SHOSHO

Art Unit: 1714

**I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231, on September 15, 2003**

Donald Edgar

**Date:** Sept 15, 2003

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

## AMENDMENT C

No claims are being amended by this amendment.

## REMARKS

Responsive to the Office Action of June 3, 2003, reconsideration of all grounds of rejection is requested. In the Office action, the examiner repeated the rejection of all claims as being obvious under 35 USC 103 based on US Patent 6,063,472 to Takaoka et al in view of US Patent 6,180,037 to Anderson et al. It is submitted that this rejection is in error because the prior art combination fails to make obvious applicants' claims.

Applicants seek to make a coating composition that is self-gauging. That is, when the coating composition is applied to a relatively flat surface and the coating composition is smoothed with a trowel or "float," a uniform smooth surface is achieved. A coating composition that is self-gauging is valuable for finishing wallboard in which the joints and fastener holes mar the otherwise flat surface.

Applicants achieve the self-gauging coating composition by using an aggregate that has a fairly narrow range of particle sizes. The coating composition contains enough aggregate so that when it is applied to the substrate and troweled out smooth, a coating about the thickness of one particle thick is formed. One can envision a table covered by ball bearings being smoothed out to provide a layer one ball bearing deep. Applicants seek to make a coating that has the aggregate particles side-by side and one particle deep. In other words, the size of the aggregate particles controls the thickness of the coating.

Applicants have discovered that a self-gauging coating composition can be prepared by using 18-55% of a 30-50 mesh aggregate to form a layer from about 0.020 to about 0.050 inches thick or (510 – 1270 microns) and containing from about 200 to 1000 particles per square inch. These parameters are set forth in all of applicants' claims.

US Patent 6,063,472 to Takaoka et al describes "kneaded mixtures" that are formed into films by passing through rollers. Takaoka et al discloses a very broad range of aggregate sizes for the "kneaded mixtures," namely from 30 to

2000 microns average particle diameter (Col 5, line 10). Takaoka et al describes 3 specific aggregates, but they are all outside applicants' 30-50 mesh range. The Takaoka et al "kneaded mixtures" may be rolled to form a layer 1000 micron thick (Col 14 line 58) or layers from 300 to 600 microns thick (See Table 6). Takaoka et al does not discuss the number of particles per square inch formed by the "kneaded mixtures." More importantly, Takaoka et al fails to suggest using aggregate particle size to control the thickness of the film produced.

US Patent 6,180,037 to Anderson et al. describes the formation of sheets that are formed by an extrusion/rolling process, but does not suggest the use of a coating to form the sheets. Anderson et al. does discuss particle packing, aggregate volume and the like and the impact of such things on rheology. However, like Takaoka et al, Anderson et al. fails to suggest using aggregate particle size to control the thickness of the film produced.

It is submitted that nothing in Anderson et al. suggests that any of the Anderson et al. teachings should be combined with the teachings of Takaoka et al. Neither reference relates to a coating composition and neither suggests the used of aggregate particles size to control the thickness of a coating. Earlier this year the Board of Patent Appeals and Interferences reiterated the rule that

> Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. [Emphasis added] *Ex parte Metcalf* 67 USPQ 2d 1633, 1635 (2003)

In *Ex parte Metcalf*, the Board cited numerous Federal Circuit cases that set forth this principle. For these reasons, it is submitted that the obvious rejection is in error and should be withdrawn.

In the section of the Office Action entitled Response, the Examiner requested clarification of several Arguments presented by applicants in Amendment B filed March 14, 2003.

At page 7, the Examiner referred to page 4, lines 6-8 of applicants' amendment and stated: "Thus, given that Takaoka et al disclose aggregate which *possesses particle size as presently claimed* and forms *aggregate layer with the thickness presently claimed*, it is not clear why the composition would not intrinsically possess self-gauging property." [Emphasis added] If one were to prepare a coating composition with an aggregate which *possesses particle size as presently claimed* and formed an *aggregate layer with the thickness presently claimed* with the *required number of particles per square inch*, one would produce a coating composition intrinsically possessing a self-gauging property.

The problem with the Examiner's assertion is that Takaoka et al does not disclose the particle size claimed by applicants. Takaoka et al discloses aggregates having average particle diameters of 30 to 2000 microns (Col 5, line 10) while applicants' claims define the aggregate in terms of commercial screen sizes, i.e. 30-50 mesh. As is explained in the first Stevens Declaration, paragraphs 5 and 6, a 30-50 mesh aggregate, when formed into a layer, has a measured thickness between about 500 and 900 microns. Obviously, this

requires most of the 30-50 mesh aggregate particles to be in 500 to 900 micron range.

Takaoka et al discloses the formation of a layer 1000s micron thick (Col 14 line 58) and the Takaoka et al examples describe the formation of layers from 300 to 600 microns thick (See Table 6) using a roll forming machine (See Figure 3). Applicants' seek to form a coating that is about one aggregate particle deep, i.e. 500 to 900 microns. Applicants claim a coating composition with a sufficient quantity of aggregates of the appropriate size to form a self-gauging layer "from about 0.020 to about 0.050 inches" thick or (510 – 1270 microns). Neither Takaoka et al or the other cited prior art disclose the use of aggregate particle size to control the thickness of the coating (and achieve self gauging), as required by applicants' claims.

At page 8 and 9, the Examiner questioned why Example 10 of Takaoka et al was selected to replicate, because Example 10 used a mica aggregate having an average particle size of 700 microns. As reported in the Second Stevens Declaration, the 700 micron mica is slightly coarser that the 30-50 mesh sizes specified by applicants' claims. Takaoka et al does not disclose any specific aggregates within the range required by applicants' claims. The only specific aggregates disclosed by Takaoka et al (other than mica) are a very finely divided calcium carbonate (average particle diameter of 40 microns) or a silica sand (average diameter of 120 microns). Accordingly, none of the Takaoka et al examples illustrate a composition with an aggregate within the range required by applicants' claims. As is explained in paragraph 4 of the second Stevens

Declaration, Example 10 was selected because it is the "closest" Example to applicants' claimed compositions.

At Page 9 the Examiner said, "if an aggregate were used ... which falls both within the scope of Takaoka et al and within the scope of the present claims ... wouldn't a composition with self-gauging properties necessarily be formed?" As was explained above, if one prepared a *coating composition* with a 30-50 mesh aggregate and formed an *aggregate layer with the thickness presently claimed* with the *required number of particles per square inch*, one would produce a self-gauging coating composition intrinsically possessing a property. However, as is explained above, Takaoka et al doesn't disclose any specific aggregates within the range claimed by applicants. Moreover Takaoka et al fails disclosed the concept of using aggregate size to control film thickness or the importance of particle packing claimed by applicants.

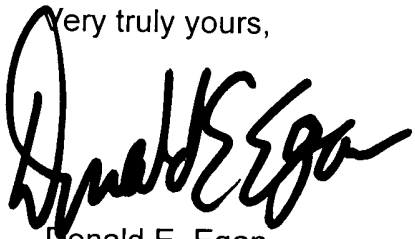
At Page 10 the Examiner inquired why Polytlon resin emulsion was not used in the test run by Mr. Stevens. The Polytlon resin disclosed by Takaoka et al could not be provided by any of Assignee's regular suppliers and could not be located via a search of the Internet. Mr. Stevens selected Aquamac 454 for the test because Aquamac 454 is sold as a "general purpose acrylic copolymer latex" having good scrub resistance. Mr. Stevens believed Aquamac 454 to be equivalent to the Polytlon disclosed by Takaoka et al.

Applicants would like to make of record the telephone interview on September 11, 2003 between Examiner Shosho and Donald E. Egan, applicants' attorney. During the interview the foregoing 4 points on which the examiner

requested clarification in the Office Action were discussed, along with the claims and the prior art.

Reconsideration of all grounds of rejection is respectfully requested in the light of the forgoing remarks and an early Notice of Allowance is solicited.

Very truly yours,



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Donald E. Egan
Registration No 19,691
273 Stonegate Road
Clarendon Hills, Illinois 60514
(630) 920-8440